

SMITHSONIAN MISCELLANEOUS COLLECTIONS.

200

CHECK LIST

OF THE

INVERTEBRATE FOSSILS

OF

NORTH AMERICA.

EOCENE AND OLIGOCENE.

BY

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ADVERTISEMENT.

THE following Lists of the described species of Invertebrate Fossils of North America have been prepared at the request of the Institution for the purpose of facilitating the labelling of the collections and the distribution of duplicate specimens.

It will be understood that the Smithsonian Institution does not vouch for the accuracy of the Lists, or for their completeness, and that the responsibility in reference to these points rests with the authors.

JOSEPH HENRY,
Secretary S. I.

SMITHSONIAN INSTITUTION,
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CHECK LIST

OF THE

INVERTEBRATE FOSSILS OF NORTH AMERICA.

A. EOCENE.¹

1. LOWER AND MEDIAL EOCENE,

SUBKINGDOM **PROTOZOA.**

CLASS **RHIZOPODA.**

Order **FORAMINIFERA.**

Camerinidae.

- | | |
|--|-------|
| 1. <i>Cristellaria rotella</i> , Conrad. | Flor. |
| 2. <i>Nemophora floridana</i> , Conrad. | Flor. |

¹ The Eocene Period in North America may be subdivided into three distinct groups, which I believe hold few, if any, species in common. These I have designated "Lower, Medial, and Upper Eocene." Localities of the first subdivision occur near Washington, D. C.; Piscataway and Upper Marlboro', Md.; Pamunkey River, Va.; Shark River, N. J.; and at Claiborne in the lowest bed, only visible in a low stage of the water. The second subdivision occurs in the fossiliferous sand in the upper part of Claiborne Bluff, immediately beneath the Upper Eocene limestone. A portion of the Buhr Stone of South Carolina and Georgia falls in this section, as well as the "Shell Bluff Group" on the Savannah River. All the Eocene species of New Jersey are from Shark River, Monmouth Co., except *Ostrea georgiana*, Conrad.

As the Eocene of Georgia has not been generally investigated, the Echinodermata of that State are only provisionally referred to the Jackson Group.

The portion of the Check List which includes the land and fresh-water shells is published on the authority of F. B. Meek.

An asterisk (*) is prefixed to the Lower Eocene species to distinguish them from those of the Medial Eocene.

The Upper Eocene species form a separate list, beginning on p. 21.

There are five distinct Tertiary formations between the Cretaceous and Miocene epochs. 1. Shark River Group; 2. Claiborne Group; 3. Shell Bluff Group; 4. Jackson Group; 5. Vicksburg Group. The three lower divisions are referred to the Eocene, and the first list includes the fossils of the two oldest divisions, but each of the newer groups has a separate list, beginning respectively on pages 20, 21, and 26.

SUBKINGDOM **RADIATA.**CLASS **POLYPI.**Order **ACTINARIA.****Turbinolidae.**

- | | |
|--|---------|
| 3. <i>Platytrochus Goldfussii</i> , (<i>Lea</i>) <i>Edwards</i> . | Ala. |
| 4. <i>Platytrochus Stokesii</i> , (<i>Lea</i>) <i>Edwards</i> . | Ala. |
| 5. <i>Paracyathus ? serrulus</i> , <i>Conrad</i> . | Ala. |
| 6. <i>Turbinolia pharetra</i> , <i>Lea</i> . | Ala. |
| 7. <i>Osteodes elaborata</i> , <i>Conrad</i> . | Ala. |
| 8. <i>Fiabellum cuneiforme</i> , (<i>Conrad</i>) <i>Lonsdale</i> . | S. Car. |

Madreporidae.

- | | |
|---|------|
| 9. <i>Endopachys alticostatum</i> , <i>Conrad</i> . | Ala. |
| 10. <i>Endopachys MacLurii</i> , (<i>Lea</i>) <i>Conrad</i> . | Ala. |
| 11. <i>Endopachys triangulare</i> , <i>Conrad</i> . | Ala. |

CLASS **ECHINODERMATA.**Order **ECHINOIDEA.****Scutellidae.**

- | | |
|---|------|
| 12. <i>Mortonia (Periarchus) Lyelli</i> , <i>Conrad</i> . | Ala. |
|---|------|

SUBKINGDOM **MOLLUSCA**CLASS **POLYZOA.****Escharidae.**

- | | |
|---|---------|
| 13. <i>Lunulites interstitia</i> , <i>Lea</i> . | Ala. |
| 14. <i>Escharianella linea</i> , <i>Gabb & Horn</i> . | S. Car. |

Flustrellaridae.

- | | |
|---|------|
| 15. <i>Discoflustrellaria Bouei</i> , (<i>Lea</i>) <i>Gabb & Horn</i> . | Ala. |
| 16. <i>Capularia discoidea</i> , (<i>Lea</i>) <i>Gabb & Horn</i> . | Ala. |
| 17. <i>Heteractis Duclosii</i> , (<i>Lea</i>) <i>Gabb & Horn</i> . | Ala. |

CLASS **BRACHIOPODA.****Terebratulidae.**

- | | |
|---|---------|
| 18. <i>Rhynchonella nitens</i> , <i>Conrad</i> . | Or. |
| 19. <i>Rhynchonella wilmingttonensis</i> , (<i>Lyell & Sowerby</i>) <i>Conrad</i> . | N. Car. |

CLASS LAMELLIBRANCHIATA.

Anomijidae

- | | |
|--|------|
| 20. * <i>Anomia Ruffini</i> , Conrad. | Va. |
| 21. * <i>Placunanomia inornata</i> , Gabb. | Cal. |

Ostreidae.

- | | |
|--|--------------------|
| 22. <i>Ostrea alabamensis</i> , Lea. | Ala. |
| 23. <i>Ostrea carolinensis</i> , Conrad. | S. Car. |
| 24. <i>Ostrea compressirostra</i> , Soy. | Md. |
| 25. <i>Ostrea divaricata</i> , Lea. | Ala. |
| 26. <i>Ostrea falciformis</i> , Conrad. | Ala. |
| 27. * <i>Ostrea sellaeformis</i> , Conrad. | Ala. ; S. C. ; Va. |
| 28. <i>Ostrea subtrigonalis</i> , Evans & Shumard. | Dak. ; Idaho. |
| 29. * <i>Gryphostrea eversa</i> , (Deshayes) Conrad. | Md. ; Miss. |

Spondyliidae.

- | | |
|--|------|
| 30. <i>Plicatula filamentosa</i> , Conrad. | Ala. |
|--|------|

Pectinidae.

- | | |
|--|---------|
| 31. <i>Pecten coosaensis</i> , Shumard. | Or. |
| 32. <i>Pecten Deshayesi</i> , Lea. | Ala. |
| 33. <i>Pecten propatulus</i> , Conrad. | Or. |
| 34. <i>Pecten Spilimanni</i> , Gabb. | Ala. |
| 35. <i>Camptoneoctes calvatus</i> , (Morton) Conrad. | S. Car. |

Nuculanidae.

- | | |
|--|-------------------|
| 36. <i>Nuculana aequalis</i> , Conrad. | Ala. |
| 37. <i>Nuculana bella</i> , Conrad. | Ala. |
| 38. <i>Nuculana oelata</i> , Conrad. | Ala. |
| 39. <i>Nuculana calcarenalis</i> , Conrad. | Miss. |
| 40. <i>Nuculana clalbornensis</i> , Conrad. | Ala. |
| 41. <i>Nuculana compsa</i> , (Gabb) Conrad. | Tex. ¹ |
| 42. * <i>Nuculana cultelliiformis</i> , (Rogers) Conrad. | Va. |
| 43. <i>Nuculana floridana</i> , Conrad. | Flor. |
| 44. * <i>Nuculana Gabbii</i> , Conrad. | Cal. |
| 45. * <i>Nuculana improcera</i> , Conrad. | Va. |
| 46. <i>Nuculana magna</i> , (Lea) Conrad. | Ala. |
| 47. <i>Nuculana media</i> , (Lea) Conrad. | Ala. |
| 48. <i>Nuculana opulenta</i> , Conrad. | Ala. |
| 49. * <i>Nuculana oregona</i> , (Shumard) Conrad. | Or. |
| 50. <i>Nuculana ovula</i> , (Lea) Conrad. | Ala. |
| 51. * <i>Nuculana penita</i> , Conrad. | Or. |
| 52. * <i>Nuculana parva</i> , (Rogers) Conrad. | Va. |
| 53. <i>Nuculana plana</i> , (Lea) Conrad. | Ala. |
| 54. <i>Nuculana plicata</i> , (Lea) Conrad. | Ala. |

55. <i>Nuculana protexta</i> , Conrad.	Ala.
56. <i>Nuculana pulcherrima</i> , (Lea) Conrad.	Ala.
57. <i>Nuculana semen</i> , (Lea) Conrad.	Ala.
58. <i>Nuculana subtrigona</i> , Conrad.	S. Car.
59. * <i>Nuculana willametteana</i> , (Skumard) Conrad.	Or.
60. * <i>Neilo ? abrupta</i> , Conrad.	Or.
61. * <i>Yoldia acutifrons</i> , Conrad.	Cal.
62. <i>Yoldia eborea</i> , Conrad.	Ala.
63. * <i>Yoldia impressa</i> , Conrad.	Or.
64. * <i>Yoldia nasuta</i> , Gabb.	Cal.
65. * <i>Yoldia protexta</i> , Conrad.	N. Jer.

Nuculidæ.

66. <i>Nucula carinifera</i> , Lea.	Ala.
67. * <i>Nucula</i> Conrad, Meck.	Or.
68. <i>Nucula magnifica</i> , Conrad.	Ala.

Arcidæ.

69. <i>Axinæa idonea</i> , Conrad.	Ala.
70. <i>Axinæa intercostata</i> , Gabb.	Tex.
71. <i>Axinæa staminea</i> , Conrad.	Ala.
72. <i>Axinæa trigonella</i> , Conrad.	Ala.
73. * <i>Latiarca gigantea</i> , Conrad.	Md.
74. * <i>Latiarca ouoncheila</i> (Rogers) Conrad.	Va.
75. * <i>Latiarca tranaveraa</i> , (Rogers) Conrad.	Va.
76. <i>Cucullarca cuculoides</i> , Conrad.	Ala.
77. * <i>Anomolocardia devincta</i> , Conrad.	Or.
78. <i>Anomolocardia rhomboidella</i> , (Lea) Conrad.	Ala.
79. <i>Limopsis aviculoides</i> , Conrad.	Ala.
80. <i>Limopsis corbuloides</i> , Conrad.	Ala.
81. <i>Limopsis decisa</i> , Conrad.	Ala.
82. <i>Limopsis deolivus</i> , Conrad.	Ala.
83. <i>Limopsis ellipsa</i> , (Lea) Conrad.	Ala.
84. * <i>Limopsis nitens</i> , Conrad.	Or.
85. * <i>Limopsis oregonensis</i> , Conrad.	Or.
86. <i>Limopsis pectuncularis</i> , (Lea) Conrad.	Ala.
87. <i>Limopsis perplanus</i> , Conrad.	Ala.
88. <i>Trigonocella ouneus</i> , Conrad.	Ala.

Trigoniidæ.

89. <i>Hippagus isocardioidea</i> , Lea.	Ala.
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Aviculidæ.

90. * <i>Avicula annosa</i> , Conrad.	N. Jer.
91. <i>Avicula limula</i> , Conrad.	Ala.
92. * <i>Avicula pellucida</i> , Gabb.	Cal.

Mytilidæ.

- | | |
|---|------|
| 93. <i>Lithophaga clabornensis</i> , Conrad. | Ala. |
| 94. <i>Perna texana</i> , Gabb. | Tex. |
| 95. * <i>Mytilus ? hnmerns</i> , Conrad. | Cal. |
| 96. * <i>Stalagminm concentricum</i> , (Gabb) Conrad. | Cal. |
| 97. <i>Stalagminm margaritaceum</i> , Conrad. | Ala. |

Unionidæ.

- | | |
|--|--------|
| 98. <i>Unio Danæ</i> , Meek & Hayden. | Dak. |
| 99. <i>Unio Deweyanus</i> , Meek & Hayden. | Dak. |
| 100. <i>Unio Haydeni</i> , Meek. | Uts. |
| 101. <i>Unio priscus</i> , Meek & Hayden. | Idaho. |
| 102. <i>Unio subpatulatus</i> , Meek & Hayden. | Dak. |
| 103. <i>Unio (Unicmeris) vetulus</i> , Meek. | Uts. |

Crassatellidæ.

- | | |
|--|--------------|
| 104. <i>Crassatella alta</i> , Conrad. | Ala.; Cal. |
| 105. <i>Crassatella alæformis</i> , Conrad. | Md.; S. Car. |
| 106. <i>Crassatella antestriata</i> , Gabb. | Tex. |
| 107. * <i>Crassatella capricornium</i> , Rogers. | Vs. |
| 108. <i>Crassatella grandis</i> , Gabb. | Cal. |
| 109. <i>Crassatella protexta</i> , Conrad. | Ala. |
| 110. * <i>Crassatella palmula</i> , Conrad. | Md. |
| 111. * <i>Crassatella nvasana</i> , Conrad. | Cal. |

Astartidæ.

- | | |
|--|---------|
| 112. <i>Astarte Conradi</i> , Dana. | Ala. |
| 113. <i>Astarte tellinoides</i> , Conrad. | Ala. |
| 114. <i>Micromeris minutissima</i> , (Lea) Conrad. | Ala. |
| 115. <i>Micromeris parva</i> , (Lea) Conrad. | Ala. |
| 116. <i>Venericardia alticosta</i> , Conrad. | Ala. |
| 117. <i>Venericardia ? bilineata</i> , Conrad. | S. Car. |
| 118. * <i>Venericardia Blandingi</i> , Conrad. | S. Car. |
| 119. * <i>Venericardia densata</i> , Conrad. | Ala. |
| 120. * <i>Venericardia Hornii</i> , Gabb. | Cal. |
| 121. <i>Venericardia monilicosta</i> , Gabb. | Tex. |
| 122. <i>Venericardia parva</i> , Lea. | Ala. |
| 123. * <i>Venericardia perantiqua</i> , Conrad. | N. Jer. |
| 124. * <i>Venericardia planicosta</i> , Lam. | Va. |
| 125. * <i>Venericardia regia</i> , Conrad. | Md. |
| 126. <i>Venericardia rotunda</i> , Lea. | Ala. |
| 127. <i>Venericardia Stillmani</i> , Lea. | Ala. |
| 128. <i>Venericardia ? subquadrata</i> , Conrad. | S. Car. |

Solemyidæ.

- | | |
|--|-----|
| 129. * <i>Solemya ventricosa</i> , Conrad. | Or. |
|--|-----|

Ungulinidae.

- | | |
|--|------|
| 130. <i>Sphaerella inflata</i> , (Lea) Conrad. | Ala. |
| 131. <i>Sphaerella levis</i> , Conrad. | Ala. |
| 132. * <i>Sphaerella oregona</i> , Conrad. | Or. |
| 133. * <i>Mysia parilla</i> , Conrad. | Or. |
| 134. * <i>Mya polita</i> , Gabb. | Cal. |

Lucinidae.

- | | |
|--|------|
| 135. * <i>Lucina acutilineata</i> , Conrad. | Or. |
| 136. <i>Lucina carinifera</i> , Conrad. | Ala. |
| 137. <i>Lucina dolabra</i> , Conrad. | Ala. |
| 138. * <i>Lucina fibrosa</i> , Shumard. | Or. |
| 139. * <i>Lucina gyrata</i> , (Gabb) Conrad. | Cal. |
| 140. <i>Lucina modesta</i> , Conrad. | Ala. |
| 141. <i>Lucina papyracea</i> , Lea. | Ala. |
| 142. <i>Lucina pandata</i> , Conrad. | Ala. |
| 143. <i>Lucina pomilla</i> , Conrad. | Ala. |
| 144. <i>Lucina impressa</i> , Conrad. | Ala. |
| 145. <i>Gafrarium distans</i> , Conrad. | Ala. |
| 146. <i>Gafrarium litatum</i> , Conrad. | Ala. |

Cardiidae.

- | | |
|--|------|
| 147. * <i>Cardium Brewerii</i> , Gabb. | Cal. |
| 148. * <i>Cardium Cooperii</i> , Gabb. | Cal. |
| 149. * <i>Cardium subtentum</i> , Conrad. | Or. |
| 150. * <i>Protocardia gambrina</i> , Gabb. | Cal. |
| 151. * <i>Protocardia virginiana</i> , Conrad. | Va. |
| 152. * <i>Laevicardium linteum</i> , Conrad. | Cal. |

Cyrenidae.

- | | |
|--|------|
| 153. <i>Sphaerium formosum</i> , Meek & Hayden. | Dak. |
| 154. <i>Sphaerium planum</i> , Meek & Hayden. | Dak. |
| 155. <i>Sphaerium reticardinale</i> , Meek & Hayden. | Dak. |
| 156. <i>Sphaerium subellipticum</i> , Meek & Hayden. | Dak. |
| 157. <i>Corbicula cytheriformis</i> , Meek & Hayden. | Dak. |
| 158. <i>Corbicula moreauensis</i> , Meek & Hayden. | Dak. |
| 159. <i>Corbicula nebrascensis</i> , Meek & Hayden. | Dak. |

Cyprinidae.

- | | |
|---|------|
| 160. * <i>Cyprina bisecta</i> , Conrad. | Or. |
| 161. * <i>Cyprinella tenuis</i> , Gabb. | Cal. |

Veneridae.

- | | |
|---|--------------------|
| 162. * <i>Dosiniopsis alta</i> , Conrad. | Flor. ; Va. ; Cal. |
| 163. * <i>Dosiniopsis Meekii</i> , Conrad. | Md. |
| 164. * <i>Dosiniopsis lenticularis</i> , (Rogers) Conrad. | Va. |

165. <i>Cryptogramma floridana</i> , Conrad.	Flor.
166. <i>Cryptogramma</i> ? <i>penita</i> , Conrad.	Flor.
167. * <i>Venus</i> ? <i>lamellifera</i> , Conrad.	Or.
168. * <i>Venus securis</i> , Shumard.	Or.
169. <i>Meretrix Yoakumii</i> , Gabb.	Tex.
170. <i>Dione angustifrons</i> , Conrad.	Or.
171. <i>Dione æquorea</i> , Conrad.	Ala.
172. * <i>Dione brevilineata</i> , Conrad.	Or.
173. * <i>Dione Conradiana</i> , Gabb.	Cal.
174. * <i>Dione californiana</i> , Conrad.	Cal.
175. <i>Dione discoidalis</i> , Conrad.	Ala.
176. * <i>Dione eversa</i> , Conrad.	Va.
177. <i>Dione floridana</i> , Conrad.	Flor.
178. * <i>Dione lenis</i> , Conrad.	Va.
179. * <i>Dione liciata</i> , Conrad.	Va.
180. <i>Dione Mortoni</i> , Conrad.	Ala.
181. <i>Dione Nuttalli</i> , Conrad.	Ala. ; Tex.
182. * <i>Dione oregonensis</i> , Conrad.	Or.
183. * <i>Dione ovata</i> , (Rogers) Conrad.	Va.
184. * <i>Dione perbrevis</i> , Conrad.	Va.
185. <i>Dione perovata</i> , Conrad.	Als.
186. <i>Dione Poulsoni</i> , Conrad.	Miss.
187. * <i>Dione Uvasana</i> , Conrad.	Cal.
188. * <i>Dione varians</i> , Gabb.	Cal.

Paphiidae.

189. <i>Mactropsis æquorea</i> , Conrad.	Ala.
190. <i>Mactropsis rectilinearis</i> , Conrad.	Ala.

Scrobiculariidae.

191. <i>Semele llnosa</i> , Conrad.	Ala.
192. <i>Abra nitens</i> , Conrad.	Ala.
193. <i>Abra tellinula</i> , Conrad.	Ala.

Donacidae.

194. <i>Egeria donacia</i> , Conrad.	Als.
195. <i>Egeria funerata</i> , Conrad.	Ala.
196. <i>Egeria limatula</i> , Conrad.	Als.
197. <i>Egeria</i> ? <i>nana</i> , Lea.	Ala.
198. <i>Egeria ovalis</i> , Lea.	Als.
199. <i>Egeria subtrigona</i> , Lea.	Als.
200. <i>Egeria veneriformis</i> , Lea.	Ala.

Tellinidae.

201. * <i>Tellina albaria</i> , Conrad.	Or.
202. <i>Tellina</i> (<i>Arcopagia</i>) <i>alta</i> , Conrad.	Ala.
203. * <i>Tellina arcotata</i> , Conrad.	Or.

204. * <i>Tellina bitruncata</i> , Conrad.	Or.
205. * <i>Tellina californica</i> , Gabb.	Cal.
206. * <i>Tellina emaccerata</i> , Conrad.	Or.
207. * <i>Tellina longa</i> , Gabb.	Cal.
208. * <i>Tellina obruta</i> , Conrad.	Or.
209. * <i>Tellina oregonensis</i> , Conrad.	Or.
210. <i>Tellina papyria</i> , Conrad.	Ala.
211. <i>Tellina perovata</i> , Conrad.	Ala.
212. <i>Tellina</i> (<i>Peronæoderma</i>) <i>ovalis</i> , Conrad.	Ala.
213. <i>Tellina plana</i> , (Lea) Conrad.	Ala.
214. <i>Tellina</i> (<i>Arcopecten</i>) <i>Ravenell</i> , Conrad.	Ala.
215. * <i>Tellina subnasuta</i> , Conrad.	Or.
216. <i>Tellina soandula</i> , Conrad.	Ala.
217. <i>Tellina Sillimani</i> , Conrad.	Ala.
218. <i>Tellina</i> (<i>Arcopecten</i>) <i>subæqualis</i> , Conrad.	S. Car.
219. <i>Gari flosa</i> , Conrad.	Ala.
220. * <i>Gari ? texta</i> , Gabb.	Cal.

Macridæ.

221. * <i>Macra albaria</i> , Conrad.	Or.
222. <i>Macra decisa</i> , Conrad.	Ala.
223. <i>Macra parilis</i> , Conrad.	Ala.
224. <i>Macrella prætenula</i> , Conrad.	Ala.
225. <i>Pteropsis papyria</i> , Conrad.	Ala.
226. <i>Pteropsis lapidosa</i> , Conrad.	S. Car.

Anatinidæ.

227. <i>Periploma californensis</i> , (Lea) Conrad.	Ala.
228. * <i>Thracia trapezoides</i> , Conrad.	Or.
229. * <i>Pholadomya marylandica</i> , Conrad.	Md.

Corbulidæ.

230. <i>Corbula</i> (<i>Potamomya</i>) <i>maotriformis</i> , Meek & Hayden.	Mo.
231. <i>Corbula nasuta</i> , Conrad.	Ala.
232. <i>Corbula oniscus</i> , Conrad.	Ala.
233. * <i>Corbula parilis</i> , Gabb.	Cal.
234. <i>Corbula perundata</i> , Meek & Hayden.	Mo.
235. <i>Corbula texana</i> , Gabb.	Tex.
236. * <i>Nucera dolabriformis</i> , Gabb.	Cal.

Saxicavidæ.

237. * <i>Glycimeris abrupta</i> , Conrad.	Or.
238. * <i>Glycimeris elongata</i> , Conrad.	Md.

Solenidæ.

239. * <i>Plectosolen curtus</i> , Conrad.	Or.
240. * <i>Plectosolen ? diegoensis</i> , (Gabb.) Conrad.	Cal.

241. **Plectosolen parallelus*, (Gabb.) Conrad. Cal.
 242. **Plectosolen protectus*, Conrad. Or.

Pholadidae.

243. **Pholas petrosa*, Conrad. Md.
 244. *Teredo simplex*, Lea. Ala.

Gastrochaenidae.

245. *Gastrochaena larva*, Conrad. Ala.

CLASS GASTEROPODA.

Order TECTIBRANCHIATA.

Cylichnidae.

246. *Cylichna Dekayi*, (Lea) Conrad. Ala.
 247. *Cylichna galba*, Conrad. Ala.
 248. *Cylichna Kelloggi*, Gabb. Tex.
 249. **Cylichna oregonensis*, Conrad. Or.
 250. **Cylichna petrosa*, Conrad. Or.
 251. *Volvula Conradiana*, Gabb. Tex.
 252. *Volvula minutissima*, Gabb. Tex.

Actæonidae.

253. *Actæon costellatus*, Conrad. Ala.
 254. *Actæon idoneus*, Conrad. Ala.
 255. *Actæon pomilius*, Conrad. Ala.
 256. *Actæon punctatus*, Lea. Ala.
 257. *Actæon subvaricatus*, Conrad. Ala.
 258. **Tornatellæa bella*, Conrad. Ala.
 259. **Tornatellæa impressa*, (Gabb) Conrad. Cal.
 260. *Tornatellæa lata*, Conrad. Ala.
 261. *Cinulia Matthewsoni*, Gabb. Cal.
 262. *Actæonema striata*, (Lea) Conrad. Ala.
 263. **Actæonema prisca*, Conrad. N. Jer.
 264. *Actæonema sulcata*, (Lea) Conrad. Ala.
 265. *Ringicula buplicata*, (Lea) Conrad. Ala.

SUBCLASS PULMONIFERA.

Limnæidae.

266. *Limnæa nitidula*, Meek. Uta.
 267. *Limnæa similis*, Meek. Uta.
 268. *Limnæa (Pleurolimnæa) tenuicostata*, Meek & Hayden. Dak.
 269. *Limnæa vetusta*, Meek. Uta.
 270. *Physa rhomboidea*, Meek & Hayden. Uta.
 271. *Aplexa longiuscula*, Meek & Hayden. Dak.

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| 272. <i>Aplexa subelongata</i> , Meek & Hayden. | Dak. |
| 273. <i>Planorbis convolutus</i> , Meek. | Uta. |
| 274. <i>Planorbis planiconvexus</i> , Meek & Hayden. | Ida. |
| 275. <i>Planorbis spectabilis</i> , Meek. | Uta. |
| 276. <i>Planorbis utahensis</i> , Meek & Hayden. | Uta. |

Ancylidæ.

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| 277. <i>Ancylus minutulus</i> , Meek & Hayden. | Dak. |
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Auriculidæ.

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| 278. <i>Melampus priscus</i> , Meek. | Uta. |
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Helicidæ.

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| 279. <i>Bullmus floridanus</i> , Conrad. | Flor. |
| 280. <i>Spiraxia Haydeni</i> , Meek. | Dak. |
| 281. <i>Helix</i> ? <i>obliqua</i> , Meek & Hayden. | Idaho. |
| 282. <i>Helix veterua</i> , Meek. | Uta. |
| 283. <i>Helix</i> ? <i>vetusta</i> , Meek & Hayden. | Idaho. |
| 284. <i>Polygyra amplexa</i> , Meek & Hayden. | Idaho. |
| 285. <i>Macrocyclus spatiosa</i> , (Meek & Hayden) Meek. | Uta. |
| 286. <i>Helicella occidentalis</i> , Meek & Hayden. | Idaho. |
| 287. <i>Helicella Evansi</i> , Meek & Hayden. | Idaho. |
| 288. <i>Clausilia contraria</i> , (Meek & Hayden) Meek. | Dak. |
| 289. <i>Clausilia teres</i> , (Meek & Hayden) Meek. | Dak. |
| 290. <i>Clausilia vermicula</i> , (Meek & Hayden) Meek. | Dak. |

Order CYCLOBRANCHIATA.**Dentaliidæ.**

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| 291. * <i>Dentalium Cooperii</i> , Gabb. | Cal. |
| 292. <i>Dentalium minutistriatum</i> , Gabb. | Tex. |
| 293. <i>Dentalium thalioidea</i> , Conrad. | Ala. |
| 294. <i>Dentalium turritum</i> , Lea. | Ala. |
| 295. <i>Dentalium substriatum</i> , Conrad. | Or. |
| 296. * <i>Gadus pusillus</i> , (Gabb) Conrad. | Cal. |
| 297. <i>Gadus subcoarctatus</i> , (Gabb) Conrad. | Tex. |

Chitonidæ.

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| 298. <i>Chiton antiquus</i> , Conrad. | Ala. |
| 299. <i>Chiton eocenensis</i> , Conrad. | Ala. |

Order RHIPIDOGLOSSATA.**Fissurellidæ.**

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| 300. <i>Emarginula arata</i> , Conrad. | Ala. |
| 301. * <i>Emarginula radiata</i> , Gabb. | Cal. |
| 302. <i>Fissurella tenebrosa</i> , Conrad. | Ala. |

Rotellidae.

303. *Umbonium nanus*, (Lea) Conrad. Ala.

Trochidae.

304. *Planaria nitens*, Lea. Ala.
 305. **Monodonta glandula*, Conrad. Md.

Order **CTENOBRANCHIATA.****Vanikoridae.**

306. **Vanikoro diegoana*, (Conrad) Meek. Cal.

Capulidae.

307. *Concholepas pygmaea*, (Lea) Conrad. Ala.

Calyptraeidae.

308. *Trochita trochiformis*, (Lea) Conrad. Ala.
 309. **Spirocrypta pileum*, Gabb. Cal.
 310. *Crypta dumosa*, Conrad. Ala.
 311. **Crypta praerupta*, Conrad. Or.
 312. *Crypta lirata*, Conrad. Ala.
 313. **Crypta rostralis*, Conrad. Or.
 314. **Galeropsis excentricus*, (Gabb) Conrad. Cal.

Onustidae.

315. *Onustus extensus* ? Sowerby. N. Jer.
 316. *Onustus humilis*, Conrad. Ala.

Vermetidae.

317. *Tenegoda vitia*, Conrad. Ala.

Turritellidae.

318. *Turritella caelatura*, Conrad. S. Car.
 319. *Turritella carinata*, Lea. Ala.
 320. **Turritella humerosa*, Conrad. Md.
 321. **Turritella Mortoni*, Conrad. Ala.
 322. *Turritella nasuta*, Gabb. Tex.
 323. **Turritella perditia*, Conrad. Or.
 324. *Turritella praecincta*, Conrad. Ala.
 325. **Turritella uvasana*, Conrad. Cal.
 326. **Mesalia arenicola*, Conrad. Or.
 327. *Mesalia hintea*, Conrad. Ala.
 328. *Mesalia obruta*, Conrad. Ala.
 329. *Mesalia striata*, (Lea) Conrad. Ala.
 330. *Mesalia venusta*, Conrad. Ala.

Valvatidae.

331. *Valvata parvula*, Meek & Hayden. Dak.
 332. *Valvata subumbilicata*, Meek & Hayden. Dak.

Viviparidæ.

333. <i>Viviparus Conradi</i> , Meek & Hayden.	Dak.
334. <i>Viviparus Leai</i> , Meek & Hayden.	Dak.
335. <i>Viviparus Leidyi</i> , Meek & Hayden.	Dak.
336. <i>Viviparus Lyelli</i> , Conrad.	N. Car.
337. <i>Viviparus Reynoldsianus</i> , Meek & Hayden.	Dak.
338. <i>Viviparus retusus</i> , Meek & Hayden.	Dak.
339. <i>Viviparus trochiformis</i> , Meek & Hayden.	Dak.
340. <i>Campefoma multistriatum</i> , (Meek & Hayden) Meek.	Dak.
341. <i>Campefoma multilineatum</i> , (Meek & Hayden) Meek.	Dak.
342. <i>Campefoma vetulum</i> , (Meek & Hayden) Meek.	Dak.

Rissoidæ.

343. <i>Hydrobia Anthonii</i> , Meek & Hayden.	Dak.
344. <i>Micropyrgus minutulus</i> , Meek & Hayden.	Dak.

Lacunidæ.

345. <i>Lacunaria alabamensis</i> , (Whitfield) Conrad.	Ala.
346. <i>Lacunaria erecta</i> , (Whitfield) Conrad.	Ala.

Melaniidæ.

347. <i>Tiara humerosa</i> , Meek.	Uta.
348. <i>Melania convexa</i> , Meek & Hayden.	Uta.
349. <i>Melania inornata</i> , Meek & Hayden.	Dak.
350. <i>Melania nebrascensis</i> , Meek & Hayden.	Dak.

Strepomatidæ.

351. <i>Goniobasis</i> ? <i>nodulosa</i> , (Hall) Meek.	Uta.
352. <i>Goniobasis</i> ? <i>arcta</i> , Meek.	Dak.
353. <i>Goniobasis</i> ? <i>Fremontii</i> , (Hall) Meek.	Uta.
354. <i>Goniobasis</i> ? <i>Simpsoni</i> , Meek.	Uta.
355. <i>Goniobasis</i> ? <i>subisævia</i> , (Meek & Hayden) Meek.	Dak.
356. <i>Goniobasis</i> ? <i>subtortuosa</i> , (Meek & Hayden) Meek.	Ida.
357. <i>Goniobasis</i> ? <i>tenuicarinata</i> , (Meek & Hayden) Meek.	Dak.
358. <i>Goniobasis</i> ? <i>tenera</i> , (Hall) Meek.	Uta.

Cerithiidæ.

359. <i>Cerithidea</i> (<i>Pirenella</i>) <i>nebrascensis</i> , Meek & Hayden.	Dak.
360. <i>Cerithium claihornense</i> , Conrad.	Ala.
361. <i>Vertagus georgianus</i> , Lyell & Sowerby.	Ga.
362. <i>Cerithium siliceum</i> , Conrad.	S. Car.
363. <i>Cerithium vinotum</i> , Whitfield.	Ala.

Cancellaridæ.

364. <i>Cancellaria alveata</i> , Conrad.	Ala.
365. <i>Cancellaria babylonica</i> , Lea.	Ala.
366. <i>Cancellaria elevata</i> , Lea.	Ala.
367. <i>Cancellaria ellapsea</i> , Conrad.	Tex.

368. <i>Cancellaria gemmata</i> , Conrad.	Ala.
369. <i>Cancellaria impressa</i> , Conrad.	Ala.
370. <i>Cancellaria lirata</i> , Conrad.	Tex. ?
371. <i>Cancellaria multiplicata</i> , Lea.	Ala.
372. * <i>Cancellaria oregonensis</i> , Conrad.	Or.
373. <i>Cancellaria parva</i> , Lea.	Ala.
374. <i>Cancellaria plicata</i> , Lea.	Ala.
375. <i>Cancellaria tessellata</i> , Lea.	Ala.
376. <i>Cancellaria tortiplica</i> , Conrad.	Tex.

Strombidae.

377. <i>Calyptraphorus trinodiferus</i> , Conrad.	Ala.
378. * <i>Calyptraphorus velatus</i> , Conrad.	Ala.
379. * <i>Rimella canalifera</i> , Gabb.	Cal.
380. <i>Rimella laqueata</i> , Conrad.	Ala.
381. * <i>Lelorrhynchus californicus</i> , Conrad.	Cal.
382. <i>Lelorrhynchus proratus</i> , Conrad.	Ala.
383. * <i>Hippochrenes columbaria</i> ? DeFrance.	N. Jer.

Conidae.

384. * <i>Conus Hornii</i> , Gabb.	Cal.
385. * <i>Conus Remondii</i> , Gabb.	Cal.
386. <i>Conus sauridens</i> , Conrad.	Ala.
387. <i>Conus subsauridens</i> , Conrad.	Ala. ?

Pleurotomariidae.

388. * <i>Pleurotomaria perlata</i> , Conrad.	N. Jer.
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Architectonicidae.

389. <i>Architectonica alveata</i> , Conrad.	Ala.
390. <i>Architectonica amœna</i> , Conrad.	Ala.
391. <i>Architectonica antrosa</i> , Conrad.	Ala.
392. <i>Architectonica cancellata</i> , Conrad.	Ala.
393. * <i>Architectonica cognata</i> , Gabb.	Cal.
394. <i>Architectonica elaborata</i> , Conrad.	Ala.
395. <i>Architectonica exacua</i> , Conrad.	Ala.
396. <i>Architectonica fungina</i> , Conrad.	Ala.
397. <i>Architectonica Henrioi</i> , (Lea) Conrad.	Ala.
398. * <i>Architectonica Hornii</i> , Gabb.	Cal.
399. <i>Architectonica Meekana</i> , Gabb.	Tex.
400. <i>Architectonica ornata</i> , (Lea) Conrad.	Ala.
401. <i>Architectonica plana</i> , (Lea) Conrad.	Ala.
402. <i>Architectonica pseudogranulata</i> , (D'Orbigny) Conrad.	Ala.
403. <i>Architectonica scrobiculata</i> , Conrad.	Ala.
404. <i>Architectonica stalagmium</i> , Conrad.	Ala.
405. <i>Architectonica texana</i> , Gabb.	Tex.
406. <i>Architectonica vespertina</i> , Gabb.	Tex.
407. <i>Solariorbis depressus</i> , (Lea) Conrad.	Ala.

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| 408. <i>Solariorbis belius</i> , Conrad. | Ala. |
| 409. <i>Solariorbis lineatus</i> , (Lea) Conrad. | Ala. |
| 410. <i>Solariorbis nitens</i> , (Lea) Conrad. | Ala. |
| 411. <i>Orbis rotella</i> , Lea. | Ala. |

Cerithiopsidæ. †

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| 412. <i>Cerithopsis</i> ? <i>alternata</i> , Gabb. | Cal. |
| 413. <i>Cleidomera</i> ? <i>bicostellata</i> , Conrad. | S. Car. |
| 414. <i>Cleidomera</i> <i>claibornense</i> , Conrad. | Ala. |
| 415. * <i>Cleidomera</i> <i>nassula</i> , Conrad. | Ala. |
| 416. <i>Cleidomera</i> <i>solitaria</i> , Conrad. | Ala. |
| 417. * <i>Mathilda</i> ? <i>oregonensis</i> , Conrad. | Or. |
| 418. * <i>Cerithioderma</i> <i>prima</i> , Conrad. | Ala. |

Eulimidæ.

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| 419. <i>Eulima</i> <i>aciculiata</i> , (Lea) Conrad. | Ala. |
| 420. <i>Eulima</i> (<i>Pasithea</i>) <i>claibornensis</i> , Lea. | Ala. |
| 421. <i>Eulima</i> <i>exilis</i> , Gabb. | Tex. |
| 422. <i>Eulima</i> (<i>Pasithea</i>) <i>guttula</i> , Lea. | Ala. |
| 423. <i>Eulima</i> <i>lugubris</i> , (Lea) Conrad. | Ala. |
| 424. <i>Eulima</i> <i>notata</i> , (Lea) Conrad. | Ala. |
| 425. <i>Eulima</i> <i>tenua</i> , Gabb. | Tex. |
| 426. <i>Eulima</i> <i>texana</i> , Gabb. | Tex. |
| 427. <i>Eulima</i> <i>secale</i> , (Lea) Conrad. | Ala. |
| 428. <i>Niso</i> <i>umbilicata</i> , Conrad. | Ala. |
| 429. * <i>Niso</i> <i>polita</i> , Gabb. | Cal. |

Pyramidellidæ.

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| 430. <i>Obeliscus</i> <i>larvatus</i> , Conrad. | Ala. |
| 431. <i>Obeliscus</i> <i>melanellius</i> , (Lea) Conrad. | Ala. |
| 432. <i>Obeliscus</i> <i>peregrinus</i> , Conrad. | Ala. |
| 433. <i>Obeliscus</i> <i>pygmaeus</i> , (Lea) Conrad. | Ala. |
| 434. <i>Obeliscus</i> <i>striatus</i> , (Lea) Conrad. | Ala. |

Terebridæ.

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| 435. <i>Terebra</i> <i>venusta</i> , Lea. | Ala. |
| 436. <i>Terebrifusus</i> <i>amoenus</i> , Conrad. | Ala. |
| 437. <i>Pyramimitra</i> <i>costata</i> , (Lea) Conrad. | Ala. |
| 438. <i>Pyramimitra</i> <i>terebriformis</i> , Conrad. | Ala. |

Scalaridæ.

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| 439. <i>Scala</i> <i>dormitor</i> , Conrad. | Ala. |
| 440. <i>Scala</i> <i>lutea</i> , Conrad. | Ala. |
| 441. <i>Scala</i> <i>quinquefasciata</i> , Lea. | Ala. |
| 442. <i>Scala</i> <i>planulata</i> , Lea. | Ala. |
| 443. <i>Scala</i> (<i>Scalina</i>) <i>staminea</i> , Conrad. | Ala. |
| 444. <i>Scala</i> (<i>Opalia</i>) <i>sessilis</i> , Conrad. | Ala. |

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| 445. <i>Cirsostrema claibornensis</i> , Conrad. | Ala. |
| 446. <i>Cirsostrema</i> ? <i>nassula</i> , Conrad. | Ala. |
| 447. * <i>Compsopleura trinodosa</i> , Conrad. | Ala. |

Naticidæ.

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| 448. <i>Natica magno-umbilicata</i> , Lea. | Ala. |
| 449. <i>Natica minima</i> , Lea. | Ala. |
| 450. <i>Natica minor</i> , Lea. | Ala. |
| 451. <i>Lunatia eminula</i> , Conrad. | Ala. |
| 452. * <i>Lunatia marylandica</i> , Conrad. | Ala. |
| 453. <i>Lunatia minima</i> , (Lea) Conrad. | Ala. |
| 454. <i>Lunatia Moorei</i> , Gabb. | Tex. |
| 455. * <i>Lunatia</i> ? <i>nuciformis</i> , Gabb. | Cal. |
| 456. * <i>Lunatia oregonensis</i> , Conrad. | Or. |
| 457. <i>Lunatia semilunata</i> , Lea. | Ala. |
| 458. * <i>Lunatia Shumardiana</i> , Gabb. | Cal. |
| 459. * <i>Ampullina alveata</i> , Conrad. | Cal. |
| 460. <i>Neverita cetites</i> , Conrad. | Ala. |
| 461. <i>Neverita arata</i> , Gabb. | Tex. |
| 462. <i>Neverita gibbosa</i> , (Lea) Conrad. | Ala. |
| 463. <i>Neverita limula</i> , Conrad. | Ala. |
| 464. * <i>Neverita saxea</i> , Conrad. | Or. |
| 465. <i>Lupia perovata</i> , Conrad. | Ala. |
| 466. <i>Catinus arcatus</i> , Conrad. | Ala. |
| 467. <i>Catinus bilix</i> , Conrad. | Ala. |
| 468. <i>Catinus declivis</i> , Conrad. | Ala. |
| 469. * <i>Catinus scopulosus</i> , Conrad. | Or. |
| 470. * <i>Catinus obliquus</i> , (Gabb) Conrad. | Cal. |

Cassidæ.

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| 471. * <i>Galodea petrosa</i> , Conrad. | Or. |
| 472. * <i>Semicassis</i> ? <i>biliratus</i> , Conrad. | Or. |
| 473. <i>Semicassis brevicostatus</i> , Conrad. | Ala. |
| 474. * <i>Semicassis</i> ? <i>petrosus</i> , Conrad. | Or. |
| 475. <i>Semicassis nuperus</i> , Conrad. | Ala. |
| 476. <i>Semicassis Sowerbii</i> , (Lea) Conrad. | Ala. |

Sycotopidæ.

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| 477. * <i>Perissolax Gabbii</i> , Conrad. | Cal. |
| 478. * <i>Ficopsis Cooperii</i> , (Gabb) Conrad. | Cal. |
| 479. * <i>Ficopsis modestus</i> , Conrad. | Or. |
| 480. * <i>Ficopsis mammillatus</i> , (Gabb) Conrad. | Cal. |
| 481. * <i>Ficopsis penitus</i> , Conrad. | Ala. |
| 482. * <i>Ficopsis Remondii</i> , (Gabb) Conrad. | Cal. |
| 483. * <i>Priscoficus Hornii</i> , (Gabb) Conrad. | Cal. |

484. **Priscofusus oregonensis*, Conrad. Or.
 485. **Priscofusus Smithii* ? (Sowerby) Conrad. N. Jer.

Marginellidæ.

486. *Marginella crassilabra*, Conrad. Ala.
 487. *Marginella constricta*, Conrad. Ala.
 488. *Marginella humerosa*, Conrad. Ala.
 489. *Volutella larvata*, Conrad. Ala.

Volutidæ.

490. **Volutilithes californianus*, Conrad. Cal.
 491. *Volutilithes impressus*, Conrad. Tex.
 492. *Volutilithes indentus*, Conrad. Tex.
 493. **Volutilithes induratus*, Conrad. Or.
 494. *Volutilithes limopsis*, Conrad. Ala.
 495. **Volutilithes mutatus* ? Deshayes. N. Jer.
 496. *Volutilithes petrosus*, Conrad. Ala.
 497. *Volutilithes rugatus*, Conrad. Ala.
 498. *Volutilithes Sayanus*, Conrad. Ala.; Tex.
 499. *Volutilithes symmetricus*, Conrad. Miss.
 500. *Volutilithes (Athleta) Tuomeyi*, Conrad. Ala.
 501. *Caricella bolaris*, Conrad. Ala.
 502. *Caricella demissa*, Conrad. Ala.
 503. *Caricella foliata*, Conrad. Ala.
 504. *Caricella Flemingii*, (Lea) Conrad. Ala.
 505. *Caricella prætenius*, Conrad. Ala.
 506. *Caricella pyruloides*, Conrad. Ala.
 507. *Otocheilus nereidis*, Conrad. Ala.

Mitridæ.

508. *Conomitra fusoides*, (Lea) Conrad. Ala.
 509. *Lapparia dumosa*, Conrad. Ala.
 510. *Lapparia Mooreana*, (Gabb) Conrad. Tex.
 511. *Lapparia pactylla*, Conrad. Ala.
 512. *Mitra (Callithea) exilis*, Gabb. Tex.
 513. *Fusimitra* ? lineata, (Lea) Conrad. Ala.
 514. *Fusimitra* ? minima, (Lea) Conrad. Ala.
 515. *Fusimitra* ? perexilis, Conrad. Ala.

Fasciolaridæ.

516. **Fasciolaria* ? io, Gabb. Cal.
 517. *Fasciolaria* ? elevata, Lea. Ala.
 518. **Fasciolaria* ? sinuata, Gabb. Cal.
 519. **Fasciolaria læviuscula*, Gabb. Cal.
 520. *Cordieria gracilis*, Conrad. Ala.
 521. *Cordieria Moorei*, (Gabb) Conrad. Tex.
 522. *Latirus (Peristernia) plicatus*, (Lea) Conrad. Ala.

Dactylidae.

523. <i>Lamprodoma alabamensis</i> , Conrad.	Ala.
524. <i>Lamprodoma bombylis</i> , Conrad.	Ala.
525. * <i>Lamprodoma elongata</i> , (Gabb) Conrad.	Cal.
526. <i>Lamprodoma gracilis</i> , (Lea) Conrad.	Ala.
527. <i>Lamprodoma Phillipsii</i> , (Lea) Conrad.	Ala.
528. <i>Ancillopsis altile</i> , Conrad.	Ala.
529. <i>Ancillopsis scamba</i> , Conrad.	Ala.
530. <i>Ancillopsis subglobosa</i> , Conrad.	Ala.
531. <i>Ancillopsis tenera</i> , Conrad.	Ala.
532. <i>Tortoliva texana</i> , Conrad.	Tex.
533. <i>Olivula</i> ? <i>plicata</i> , (Lea) Conrad.	Ala.
534. <i>Olivula punctulifera</i> , (Gabb) Conrad.	Tex.
535. <i>Olivula staminea</i> , Conrad.	Ala.
536. <i>Monoptygma alabamensis</i> , Lea.	Ala.
537. <i>Monoptygma crassiplica</i> , Conrad.	Tex.
538. <i>Monoptygma curta</i> , Conrad.	Ala.
539. <i>Monoptygma lymneoides</i> , Conrad.	Ala.

Purpuridae.

540. <i>Lacunia alveata</i> , Conrad.	Ala.
541. <i>Cornulina armigera</i> , Conrad.	Ala.
542. <i>Pseudoliva</i> (<i>Buccinorbis</i>) <i>carinata</i> , Conrad.	Ala.
543. <i>Pseudoliva</i> (<i>Buccinorbis</i>) <i>filiformis</i> , Conrad.	Tex.
544. * <i>Pseudoliva lineata</i> , Gabb.	Cal.
545. <i>Pseudoliva linosa</i> , Conrad.	Tex.
546. <i>Pseudoliva sulcata</i> , (Lea) Conrad.	Ala.
547. <i>Pseudoliva</i> (<i>Buccinorbis</i>) <i>tuberculifera</i> , Conrad.	Ala.
548. <i>Pseudoliva</i> (<i>Buccinorbis</i>) <i>vetusta</i> , Conrad.	Ala.
549. * <i>Pseudoliva volutæformis</i> , Gabb.	Cal.

Buccinidae.

550. <i>Lævibuccinum prorsum</i> , Conrad.	Ala.
551. * <i>Buccinofusus diegoensis</i> , (Gabb) Conrad.	Cal.
552. * <i>Nassa</i> ? <i>cretacea</i> , Gabb.	Cal.

Tritoniidae.

553. <i>Simpulum exile</i> , Conrad.	Ala.
554. <i>Simpulum otopæ</i> , Conrad.	Ala.
555. <i>Simpulum Showalteri</i> , Conrad.	Ala.
556. <i>Buccitriton altum</i> , Conrad.	Tex.
557. <i>Buccitriton sagena</i> , Conrad.	Ala.
558. <i>Buccitriton texanum</i> , Conrad.	Ala.
559. <i>Distorsio</i> (<i>Personella</i>) <i>septemdentatus</i> , Gabb.	Tex.
560. <i>Ranellina Maclurii</i> , Conrad.	Ala.

561. *Sagenella bellilirata*, Conrad. Ala.
 562. *Sagenella texana*, Conrad. Tex.

Pleurotomidae.

563. *Surcula acutirostra*, Conrad. Ala.
 564. *Surcula annosa*, Conrad. N. Jer.
 565. *Surcula alternata*, Conrad. Ala.
 566. *Surcula Beaumontii*, (Lea) Conrad. Ala.
 567. *Surcula biserialata*, Conrad. Ala.
 568. **Surcula Claytonensis*, Gabb. Cal.
 569. *Surcula cœlata*, (Lea) Conrad. Ala.
 570. *Surcula Childreni*, (Lea) Conrad. Ala.
 571. *Surcula depygis*, Conrad. Ala.
 572. *Surcula Desnoyeræi*, (Lea) Conrad. Ala.
 573. *Surcula Gabbii*, Conrad. Tex.
 574. *Surcula gemmata*, Conrad. Ala.
 575. *Surcula Kellogii*, (Gabb) Conrad. Tex.
 576. *Surcula linteæ*, Conrad. Tex.
 577. *Surcula lirata*, Conrad. Ala.
 578. *Surcula monilifera*, (Lea) Conrad. Air.
 579. *Surcula nodo-carinata*, (Gabb) Conrad. Tex.
 580. *Surcula nupera*, Conrad. Ala.
 581. *Surcula obliqua*, (Lea) Conrad. Ala.
 582. *Surcula ringosa*, (Lea) Conrad. Ala.
 583. *Surcula rugatina*, Conrad. Ala.
 584. *Surcula Sayi*, (Lea) Conrad. Ala.
 585. *Surcula subæqualis*, Conrad. Ala.
 586. *Surcula tabulata*, Conrad. Ala.
 587. *Surcula texana*, Conrad. Tex.
 588. *Surcula varicosata*, (Gabb) Conrad. Cal.
 589. *Drillia lævis*, Conrad. Ala.
 590. *Drillia Lousdali*, (Lea) Conrad. Tex.
 591. *Drillia texana*, (Gabb) Conrad. Tex.
 592. *Monilopsis elaborata*, Conrad. Ala.
 593. *Cochlospira eugonata*, Conrad. Ala.; Tex.
 594. *Conorbis conoides*, Conrad. Ala.
 595. *Exilia pergracilis*, Conrad. Tex.
 596. *Eucheilodon reticulata*, Gabb. Tex.
 597. *Scobinella ? crassiplicata*, Gabb. Tex.
 598. *Scobinella ? læviplicata*, Gabb. Tex.

Muricidae.

599. *Murex eugonatus*, Conrad. Ala.
 600. *Murex Mautelli*, Conrad. Ala.
 601. *Murex morulus*, Conrad. Ala.
 602. *Murex septenarius*, Conrad. Ala.

603. <i>Murex Vanuxemi</i> , Conrad.	Ala.
604. <i>Typhis gracilis</i> , Conrad.	Ala.
605. <i>Typhis antiquus</i> , Gabb.	Cal.
606. <i>Odontoplys compsothyris</i> , Gabb.	Tex.
607. * <i>Fusus diabolii</i> , Gabb.	Cal.
608. * <i>Fusus Martinez</i> , Gabb.	Cal.
609. * <i>Fusus Matthewsonii</i> , Gabb.	Cal.
610. <i>Papillina papillatus</i> , Conrad.	Ala.
611. <i>Clavifusus altile</i> , Conrad.	Ala.
612. <i>Clavifusus Cooperi</i> , Conrad.	Ala.
613. <i>Strepsidura Conybearii</i> , (Lea) Conrad.	Ala.
614. <i>Strepsidura bella</i> , Conrad.	Ala.
615. <i>Strepsidura limula</i> , Conrad.	Ala.
616. <i>Strepsidura linteus</i> , Conrad.	Ala.
617. <i>Strepsidura lirata</i> , Conrad.	Ala.
618. <i>Strepsidura perlata</i> , Conrad.	Ala.
619. * <i>Neptunea ? gracilis</i> , Gabb.	Cal.
620. <i>Neptunea irritata</i> , Conrad.	Ala.
621. <i>Neptunea Mortonii</i> , (Lea) Conrad.	Ala.
622. <i>Neptunea submortonii</i> , (Gabb) Conrad.	Ala.
623. * <i>Whitnea sicus</i> , Gabb.	Cal.
624. <i>Bulbifusus inauratus</i> , Conrad.	Ala.
625. <i>Turrispira protexta</i> , Conrad.	Ala.
626. <i>Turrispira salebrosa</i> , Conrad.	Ala.
627. <i>Lirofusus thoracicus</i> , Conrad.	Ala.
628. <i>Levifusus Blakei</i> , Conrad.	Cal.
629. <i>Levifusus trabeatus</i> , Conrad.	Ala.
630. <i>Clavella raphanoides</i> , Conrad.	Ala.
631. <i>Clavella pachyleurus</i> , Conrad.	Ala.
632. * <i>Exilifusus thalloides</i> , Conrad.	Ala.
633. * <i>Priscofusus corpulentus</i> , Conrad.	Or.
634. <i>Priscofusus devinctus</i> , Conrad.	Or.
635. <i>Priscofusus geniculus</i> , Conrad.	Or.
636. <i>Priscofusus medialis</i> , Conrad.	Or.
637. <i>Priscofusus nodiferus</i> , Conrad.	Or.
638. <i>Priscofusus oregonensis</i> , Conrad.	Or.

CLASS CEPHALOPODA.

Order TECTIBRANCHIATA.

Nautilidæ.

639. * <i>Aturia vanuxemi</i> , Conrad.	N. Jer.
640. * <i>Cymomia Lamarckii</i> , (Deshayes,) Conrad.	N. Jer.
641. <i>Belosepia unguis</i> , Gabb.	Tex.

SUBKINGDOM **ARTICULATA**CLASS **ANNULATA.**Order **TUBICOLA.****Serpulidae.**

- | | |
|---|------|
| 642. <i>Serpula ornata</i> , <i>Lea.</i> | Ala. |
| 643. <i>Serpula squamulosa</i> , <i>Conrad.</i> | Ala. |

CLASS **CRUSTACEA.**ORDER **CIRRIPIEDIA.****Balanidae.**

- | | |
|---|---------|
| 644. <i>Balanus humilis</i> , <i>Conrad.</i> | Flor. |
| 645. <i>Balanus peregrinus</i> , <i>Conrad.</i> | S. Car. |

2. SHELL BLUFF GROUP

SUBKINGDOM **MOLLUSCA.**CLASS **LAMELLIBRANCHIATA****Ostreidae.**

- | | |
|---|------------|
| 646. <i>Ostrea georgiana</i> , <i>Conrad.</i> | Ga.; Miss. |
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Corbulidae.

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| 647. <i>Corbula aliformis</i> , <i>Conrad.</i> | Miss. |
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CLASS **GASTEROPODA.****Muricidae.**

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| 648. <i>Pleurochellus vicksburgensis</i> , (<i>Conrad</i>) <i>Meek</i> | Miss. |
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Tritoniidae.

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| 649. <i>Tritonopsis subalveatum</i> , <i>Conrad.</i> | Miss. |
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Naticidae.

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| 650. <i>Ampullinopsis mississippiensis</i> , <i>Conrad.</i> | Miss. |
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3. UPPER EOCENE OR JACKSON GROUP.

SUBKINGDOM PROTOZOA.

CLASS RHIZOPODA.

Order FORAMINIFERA.

Cyclostigidae.

651. *Orbitolites* (*Orbitolites*) *Mantelli*, *Morton*. Miss.; Ala.

Multiloculidae.

652. *Triloculina lineata*, *Conrad*. Miss.

SUBKINGDOM RADIATA.

CLASS POLYPI.

Order ACTINARIA.

Turbinolidae.

653. *Flabellum Wallesi*, *Conrad*. Miss.

Astrœidae.

654. *Osteodes irroratus*, *Conrad*. Miss.

Madreporidae.

655. *Eudopachys expansum*, *Conrad*. Miss.

CLASS ECHINODERMATA.

Order ECHINOIDEA.

Scutellidae.

656. *Mortonia* (*Periarchus*)¹ *altus*, *Conrad*. N. Car.
 657. *Mortonia* (*Periarchus*) *carolinensis*, *Conrad*. S. Car.
 658. *Mortonia* (*Periarchus*) *crustuloides*, (*Morton*) *Conrad*. S. Car.
 659. *Mortonia* (*Periarchus*) *marginalis*, *Conrad*. S. Car.
 660. *Mortonia* (*Periarchus*) *pileus-alensis*, (*Ravenel*) *Conrad*. S. Car.
 661. *Mortonia* (*Periarchus*) *planus*, *Conrad*. S. Car.

¹ Subgenus *Periarchus*, *Conrad*. - *Description*.—Rounded; apex central; ambulacra short, open at the ends which are situated about half way between the apex and margin; ambulacral space tumid; margin and submargin thin; anna nearer to the mouth than to the periphery. The typical species of *Mortonia* (*Scutella quinquefaria*, Say) is much thicker on the edge, and the anna is situated rather nearer to the periphery than to the mouth.

Cidaridæ.

662. *Cœlopleurus depressus*, Conrad, n. s. S. Car.
 663. *Cœlopleurus infolatus*, (Morton) Desor. S. Car.

Clypeasteridæ.

664. *Clypeaster Jonesii*, (Forbes) Desor. Ga.
 665. *Clypeaster Rogersi*, (Morton) Conrad. Ala.
 666. *Clypeaster tumidus*, Conrad. Miss.

Cassidulidæ.

667. *Echinanthus Mortonii*, (Mch.) Desor. Miss.
 668. *Cassidulus amygdala*, Desor.
 669. *Cassidulus Conradi*, Couper. Ga.
 670. *Cassidulus patelliformis*, (Bourc) Desor. Ga.
 671. *Hemlaster Conradi*, Bourc. Ga.
 672. *Discoldea Haldemani*, Conrad. Ga.
 673. *Pyrgorhyncus Gouldii*, Bourc. Ga.

SUBKINGDOM MOLLUSCA.**CLASS POLYZOA.****Escharidæ.**

674. *Eschara tubulata*, (Lonsdale) Gabb & Horn. N. Car.
 675. *Eschara petiolus*, Lonsdale. S. Car.
 676. *Eschara incumbens*, Lonsdale. S. Car.
 677. *Eschara viminea*, Lonsdale. S. Car.
 678. *Eschara texta*, Gabb & Horn. S. Car.
 679. *Eschara ovalis*, Gabb & Horn. Ala.
 680. *Lunulites distans*, Lonsdale. Ala.
 681. *Lunulites sexangulata*, Lonsdale. N. Car.
 682. *Lunulites oontigua*, Lonsdale. N. Car.
 683. *Semleschara tubulata*, Gabb & Horn. Ala. ?
 684. *Cellepora cycloris*, Gabb & Horn. Ala.
 685. *Cellepora inornata*, Gabb & Horn. Ala.
 686. *Escharella micropora*, Gabb & Horn. Ala.
 687. *Reptescharella carolinensis*, Gabb & Horn. S. Car.

Fasciporidæ.

688. *Idmonea maxillaris*, Lonsdale. S. Car.

Sparsidæ.

689. *Entalophora proboscidioides*, Gabb & Horn. Ala. ?

CLASS BRACHIOPODA.**Terebratulidæ.**

690. *Terebratulina lachryma*, (Morton) Conrad. S. Car. ; Ala.
 691. *Terebratula canipes*, Ravenel. S. Car.

CLASS LAMELLIBRANCHIATA.

Anomiidæ.

692. *Anomia jugosa*, Conrad. S. Car.

Ostreidæ.

693. *Ostrea falcoformis*, Conrad. Miss.
 694. *Ostrea trigonalis*, Conrad. Miss.
 695. *Ostrea Tuomeyi*, Conrad. Miss.

Spondylidæ.

696. *Spondylus dumosus*, (Morton) Conrad. Ala.

Pectinidæ.

697. *Pecten anatis*, Morton. Ala.
 698. *Pecten membranaceus*, Morton. S. Car.
 699. *Pecten nuperus*, Conrad. Miss.
 700. *Camptonectes claibornensis*, Conrad. Ala.
 701. *Camptonectes scintillatus*, Conrad. Miss.
 702. *Janira elizata*, Conrad. Miss.
 703. *Janira Poulsoni*, Conrad. Ala.

Nuculanidæ.

704. *Nuculana linifera*, Conrad. Miss.
 705. *Nuculana multilineata*, Conrad. Miss.

Nuculidæ.

706. *Nucula spheniopsis*, Conrad. Miss.

Arcidæ.

707. *Barbatia (Cailiarca) aspera*, Conrad. Miss.
 708. *Axinæa inequistris*, Conrad. Miss.
 709. *Axinæa duplistris*, Conrad. Miss.
 710. *Axinæa filosa*, Conrad. Miss.

Aviculidæ.

711. *Pinna argentea*, Conrad. Miss.

Mytilidæ.

712. *Perna cretacea*, (Morton) Conrad. Ala.
 713. *Arcoperna filosa*, Conrad. Miss.

Crassatellidæ.

714. *Crassatella flexura*, Conrad. Miss.
 715. *Crassatella producta*, Conrad. Miss.
 716. *Venericardia Jacksonensis*, Conrad. Miss.
 717. *Astarte parilla*, Conrad. Miss.
 718. *Gouldia pygmaea*, Conrad. Miss.

Erycinidæ.

719. *Alveinus parvus*, *Conrad*. Miss.

Ungulinidæ.

720. *Sphærella bulla*, *Conrad*. Miss.
 721. *Sphærella turgida*, *Conrad*. Miss.
 722. *Mysia eburnea*, *Conrad*. Miss.

Lucinidæ.

723. *Lucina curta*, *Conrad*. Miss.
 724. *Lucina mississippiensis*, *Conrad*. Miss.
 725. *Lucina perlevis*, *Conrad*. Miss.

Cardiidæ.

726. *Protocardia lima*, *Conrad*. Miss.
 727. *Protocardia Nicoleti*, *Conrad*. Miss.; La.

Veneridæ.

728. *Dione annexa*, *Conrad*. Miss.
 729. *Dione securiformis*, *Conrad*. Miss.
 730. *Dione vicksburgensis*, *Conrad*. Miss.

Tellinidæ.

731. *Tellina albaria*, *Conrad*. Miss.
 732. *Tellina eburneopsis*, *Conrad*. Miss.
 733. *Tellina linifera*, *Conrad*. Miss.

Corbulidæ.

734. *Corbula bicarinata*, *Conrad*. Miss.
 735. *Corbula densata*, *Conrad*. Miss.
 736. *Corbula filosa*, *Conrad*. Miss.

Pholadidæ.

737. *Teredo mississippiensis*, *Conrad*. Miss.

CLASS GASTEROPODA.**Pleurobranchidæ.**

738. *Operculatum planulatum*, *Conrad*. Miss.

Caprellidæ.

739. *Capulus americanus*, *Conrad*. Miss.

Calyptæidæ.

740. *Trochita alta*, *Conrad*. Miss.

Onustidæ.

741. *Onustus humilis*, Conrad. Miss.

Turritellidæ.

742. *Mesalla alveata*, Conrad. Miss.

Cypræidæ.

743. *Cypræa sphaeroides*, Conrad. Miss.
 744. *Cypræa (Eulococypræa) lutea*, Conrad. Miss.
 745. *Cyprædia fenestralis*, Conrad. Miss.

Strombidæ.

746. *Platyoptera extenta*, Conrad. Miss.
 747. *Calyptraphorus eburneus*, Conrad. Miss.
 748. *Calyptraphorus stamineus*, Conrad. Miss.

Conidæ.

749. *Conus tortilis*, Conrad. Miss.

Architectonicidæ.

750. *Architectonica acuta*, Conrad. Miss.
 751. *Architectonica bellistriata*, Conrad. Miss.

Naticidæ.

752. *Natica permunda*, Conrad. Miss.

Scalaridæ.

753. *Cirsostrema bella*, Conrad. Miss.

Cassididæ.

754. *Galeodea (Galeodaria) Petersoni*, Conrad. Miss.
 755. *Galeodea (Galeodaria) quinquecostata*, Conrad. Miss.

Nitridæ.

756. *Lapparia dumosa*, Conrad. Miss.
 757. *Fusimitra conquisita*, Conrad. Miss.

Volutidæ.

758. *Volutilithes symmetricus*, Conrad. Miss.
 759. *Caricella polita*, Conrad. Miss.
 760. *Caricella subangulata*, Conrad. Miss.

Purpuridæ.

761. *Pseudoliva (Buccinorbis) perspectiva*, Conrad. Miss.

Muricidæ.

762. *Clavella humerosa*, Conrad. Miss.

763. *Clavella mississippiensis*, Conrad.

Vicks.

764. *Clavifusus dumosus*, Conrad.

Miss.

CLASS CEPHALOPODA.

Order TETRABRANCHIATA.

Nautilidæ.

765. *Aturia alabamensis*, (Morton) Conr.

N. J. ; S. C. ; Ala. ; Miss.

SUBKINGDOM ARTICULATA.

CLASS CRUSTACEA.

Order CIRRIPEDIA.

Balanidæ.

766. *Balanus peregrinus*, Morton.

S. Car.

B. OLIGOCENE.

SUBKINGDOM RADIATA.

CLASS POLYPI.

Order ACTINARIA.

Turbinolidæ.

767. *Turbinolia caulifera*, Conrad.

Vicks.

Madreporidæ.

768. *Dendrophyllæa mississippiensis*, Conrad.

Vicks.

SUBKINGDOM PROTOZOA.

CLASS RHIZOPODA.

Order FORAMINIFERA.

Cyclostigidæ.

769. *Orbitolites (Orbitoides) supera*, Conrad.

Vicks.

SUBKINGDOM MOLLUSCA.

CLASS LAMELLIBRANCHIATA.

Ostreidæ.

770. *Ostrea vicksburgensis*, Conrad. Vicks.

Pectinidæ.

771. *Radula staminea*, Conrad. Vicks.

Nuculidæ.

772. *Nucula serica*, Conrad. Vicks.
 773. *Nucula vicksburgensis*, Conrad. Vicks.
 774. *Nuculana mucronata*, Conrad. Vicks.
 775. *Nuculana parilis*, Conrad. Vicks.

Arcidæ.

776. *Arca mississippiensis*, Conrad. Vicks.
 777. *Arca protracta*, Conrad. Vicks.
 778. *Cucullarca mississippiensis*, Conrad. Vicks.
 779. *Axinea arcata*, Conrad. Vicks.
 780. *Axinea mississippiensis*, Conrad. Vicks.

Aviculidæ.

781. *Avicula argentea*, Conrad. Vicks.

Mytilidæ.

782. *Perna mississippiensis*, Conrad. Vicks.

Crassatellidæ.

783. *Crassatella mississippiensis*, Conrad. Vicks.

Ungulinidæ.

784. *Scintilla oblonga*, Conrad. Vicks.

Lucinidæ.

785. *Lucina perlevis*, Conrad. Vicks.
 786. *Mysia eburnea*, Conrad. Vicks.
 787. *Sphaerella turgida*, Conrad. Vicks.

Chamidæ.

788. *Chama mississippiensis*, Conrad. Vicks.

Cardiidæ.

789. *Cardium* (*Trachycardium*) *globosum*, Conrad. Vicks.
 790. *Cardium* (*Cerastoderma*) *eversum*, Conrad. Vicks.
 791. *Cardium* (*Cerastoderma*) *vicksburgense*, Conrad. Vicks.
 792. *Protocardia diversa*, Conrad. Vicks.

Veneridæ.

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|---|--------|
| 793. <i>Chione mississippiensis</i> , Conrad. | Vicks. |
| 794. <i>Dione astartiformis</i> , Conrad. | Vicks. |
| 795. <i>Dione imitabilis</i> , Conrad. | Vicks. |
| 796. <i>Dione sobrina</i> , Conrad. | Vicks. |
| 797. <i>Dione subimpressa</i> , Conrad. | Vicks. |

Tellinidæ.

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| 798. <i>Gari lutea</i> , Conrad. | Vicks. |
| 799. <i>Gari papyris</i> , Conrad. | Vicks. |
| 800. <i>Gari mississippiensis</i> , Conrad. | Vicks. |
| 801. <i>Donax funerata</i> , Conrad. | Vicks. |
| 802. <i>Tellina vicksburgensis</i> , Conrad. | Vicks. |
| 803. <i>Abra mississippiensis</i> , Conrad. | Vicks. |
| 804. <i>Abra perovata</i> , Conrad. | Vicks. |
| 805. <i>Abra staminea</i> , Conrad. | Vicks. |

Macridæ.

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| 806. <i>Macra mississippiensis</i> , Conrad. | Vicks. |
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Corbulidæ.

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| 807. <i>Corbula alta</i> , Conrad. | Vicks. |
| 808. <i>Corbula engonata</i> , Conrad. | Vicks. |
| 809. <i>Corbula interstriata</i> , Conrad. | Vicks. |
| 810. <i>Corbula laqueata</i> , Conrad. | Vicks. |

Pholadidæ.

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| 811. <i>Pholameria triquetra</i> , Conrad. | Miss. |
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CLASS GASTEROPODA.**Cylichnidæ.**

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| 812. <i>Cylichna orassiplica</i> , Conrad. | Vicks. |
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Actæonidæ.

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| 813. <i>Ringinella mississippiensis</i> , Conrad. | Vicks. |
| 814. <i>Actæon Andersoni</i> , Conrad. | Vicks. |

Dentaliidæ.

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| 815. <i>Dentalium mississippiense</i> , Conrad. | Vicks. |
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Fissurellidæ.

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| 816. <i>Fissurella mississippiensis</i> , Conrad. | Vicks. |
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Calyptræidæ.

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| 817. <i>Trochita tetrica</i> , Conrad. | Vicks. |
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Vanikoridae.

818. *Vanikoro mississippiensis*, Conrad. Vicks.

Turritellidae.

819. *Turritella mississippiensis*, Conrad. Vicks.

Cancellariidae.

820. *Cancellaria funerata*, Conrad. Vicks.

821. *Cancellaria mississippiensis*, Conrad. Vicks.

Cypræidae.

822. *Cypræa sphaeroides*, Conrad. Vicks.

823. *Cypræa (Sulococypræa) linteæ*, Conrad. Vicks.

Strombidae.

824. *Aphorrhais (Alipes) liratus*, Conrad. Vicks.

Conidae.

825. *Conus alveatus*, Conrad. Vicks.

Architectonicidae.

826. *Architectonica trilirata*, Conrad. Vicks.

Terebridae.

827. *Terebra divisura*, Conrad. Vicks.

828. *Terebra tantula*, Conrad. Vicks.

Scalariidae.

829. *Scalina triquintinaria*, Conrad. Vicks.

Naticidae.

830. *Catinus mississippiensis*, Conrad. Vicks.

Ficidae.

831. *Ficopsis mississippiensis*, Conrad. Vicks.

Cassidae.

832. *Semicassis cœlatura*, Conrad. Vicks.

833. *Semicassis mississippiensis*, Conrad. Vicks.

834. *Galeodina linteæ*, Conrad. Vicks.

835. *Galeodina tricarinata*, Conrad. Vicks.

836. *Morum harpula*, Conrad. Vicks.

Mitridæ.

837. *Fusimitra cellulifera*, Conrad. Vicks.

838. *Fusimitra conquisita*, Conrad. Vicks.

839. *Fusimitra mississippiensis*, Conrad. Vicks.

840. *Fusimitra staminea*, *Conrad*. Vicks.
 841. *Conomitra vicksburgensis*, *Conrad*. Vicks.

Volutidæ.

842. *Otocheilus mississippiensis*, *Conrad*. Vicks.
 843. *Caricella demissa*, *Conrad*. Vicks.

Turbinellidæ.

844. *Mazza Wilsoni*, *Conrad*. Vicks.
 845. *Cordieria perexilis*, *Conrad*. Vicks.
 846. *Cordieria protracta*, *Conrad*. Vicks.

Dactylidæ.

847. *Lamprodroma mississippiensis*, *Conrad*. Vicks.
 848. *Monoptygma Leai*, *Whitfield*. Vicks.

Purpuridæ.

849. *Cornulina crassicornuta*, *Conrad*. Vicks.

Buccinidæ.

850. *Tritilaria mississippiensis*, *Conrad*. Vicks.

Tritonidæ.

851. *Distorsio crassidens*, *Conrad*. Vicks.
 852. *Bursa abbreviata*, *Conrad*. Vicks.
 853. *Bursa mississippiensis*, *Conrad*. Vicks.

Pleurotomidæ

854. *Surcula cochlearis*, *Conrad*. Vicks.
 855. *Surcula congesta*, *Conrad*. Vicks.
 856. *Surcula decliva*, *Conrad*. Vicks.
 857. *Surcula rotædens*, *Conrad*. Vicks.
 858. *Surcula servata*, *Conrad*. Vicks.
 859. *Surcula tenella*, *Conrad*. Vicks.
 860. *Scobineila cæiata*, *Conrad*. Vicks.
 861. *Cochlespira cristata*, *Conrad*. Vicks.
 862. *Drillia abundans*, *Conrad*. Vicks.
 863. *Drillia eboroides*, *Conrad*. Vicks.
 864. *Drillia mississippiensis*, *Conrad*. Vicks.
 865. *Drillia ? tantula*, *Conrad*. Vicks.
 866. *Conorbis porcilianns*, *Conrad*. Vicks.

Muricidæ.

867. *Typhis curvirostratus*, *Conrad*. Vicks.
 868. *Murex mississippiensis*, *Conrad*. Vicks.
 869. *Fusus mississippiensis*, *Conrad*. Vicks.
 870. *Sipho vicksburgensis*, *Conrad*. Vicks.
 871. *Busycon spiniger*, *Conrad*. Vicks.

APPENDIX.

IN Professor Emmons's Report on the Geology of North Carolina are descriptions of a few Eocene fossils, some of which I am unable to arrange stratigraphically:—

ECHINODERMATA.

Cidaridæ.

- | | |
|--|--------------------------|
| 1. <i>Cidaris Mitchellii</i> , Emmons. | N. Car. : Jackson Group. |
| 2. <i>Cidaris carolinensis</i> , Emmons. | N. Car. : Jackson Group. |

Clypeasteridæ.

- | | |
|---|---------|
| 3. <i>Echinocystus parvus</i> , Emmons. | N. Car. |
| 4. <i>Scutella Lyelli</i> , Emmons. | N. Car. |
| 5. <i>Goniodolypus subangulatus</i> , Emmons. | N. Car. |

Crinoidea. ?

- | | |
|---|---------|
| 6. <i>Microcrinus conoideus</i> , Emmons. | N. Car. |
|---|---------|

POLYZOA.

Escharidæ.

- | | |
|---|---------|
| 7. <i>Lunulites contiguus</i> , Emmons. | N. Car. |
|---|---------|

¹ I believe this to be the masticatory apparatus of *Mortonia altus*. It is certainly no Crinoid.

— ADDENDA.

Turbinellidæ.

***Mazzalina pyrula*, Conrad. (Eocene.)** Ala.

Scutellidæ.

***Mortonia quinquenaria*, (Say) Conrad. (Eocene.)** Ga.

Scutella Rogersi, Agass. not Morton.

Mortonia Rogersi, Desor.

NOTES AND EXPLANATIONS.

- 2 = *Nummulites floridana*, CONRAD, AM. Jour. Sci. II, 2d series, 399, 3.
 3 = *Turbinolia Goldfussii*, LEA, ib. 195.
 4 = *Turbinolia Stokesii*, LEA, Cont. to Geol. 194.
 8 = *Anthophyllum cuneiforme*, CONRAD.
 10 = *Turbinolia Maclurii*, LEA, Cont. to Geol. 193, 6, 206.
 12 = *Scutella Lyelli*, CONRAD, JOUR. Acad. Nat. Sci. VII, 152.
 13 = *Orbitolites interstitia* (LEA), *Lunulites*, GABB & HORN.
 15 = *Lunulites Bonel*, LEA, Cont. to Geol. 189, 6, 202.
 16 = *Orbitolites discoides*, LEA, ib. 192, 6, 205.
 17 = *Lunulites Duclosii*, LEA, ib. 190, 6, 203.
 19 = *Terebratula wilmingttonensis*, LYELL & SOWERBY, Jour. Geol. Soc. I, 431.
 29 = *Ostrea eversa*, DESHAYES, Cog. Foss. Supplement, pl. xxxiv, f. 5, 6, 7, 8. *O. subversa*, Conrad, Eocene Cat. AM. JOUR. Conch. I, 15. It belongs to the section of *Explicæ gryphoides* of Deshayes.
 35 = *Pecten calvatus*, MORTON, Synopsis, 58, 10, 3, 1834.
 41 = *Leda compta*, GABB, JOUR. Acad. Nat. Sci. IV, 2d series, 387, 57.
 42 = *Nucula cultelliformis*, ROGERS, Trans. Amer. Philos. Soc., V, new ser. 339.
 46 = *Nucula magna*, LEA, Cont. to Geol. 196, 6, 121.
 47 = *Nucula media*, LEA, ib. 83, 3, 62.
 49 = *Leda oregona*, SHUMARD, Trans. Acad. Nat. Sci. of St. Louis, I, 121.
 50 = *Nucula ovula*, LEA, ib. 80, 3, 59.
 52 = *Nucula parva*, ROGERS, Trans. Am. Phil. Soc. V, new ser. 340.
 53 = *Nucula plana*, LEA, Cont. to Geol. 199, 6, 213.
 54 = *Nucula plicata*, LEA, ib. 85, 3, 64.
 56 = *Nucula pulcherrima*, LEA, ib. 84, 3, 63.
 57 = *Nucula semen*, LEA, ib. 200, 6, 214.
 59 = *Leda willametensis*, SHUMARD, Trans. Acad. Nat. Sci. of St. Louis, I, 121.
 74 = *Cucullæa ononchella*, ROGERS, Trans. Am. Phil. Soc. VI, 2d ser. 372, 28, 2.
 75 = *Cucullæa transversa*, ROGERS, ib. 373, 29, 1.
 78 = *Arca rhomboidella*, LEA, Cont. to Geol. 74, 2, 52.
 83 = *Pectunculus ellipsalis*, LEA, ib. 78, 3, 56.
 86 = *Nucula pectuncularis*, LEA, ib. 81, 3, 60.
 96 = *Crenella concentrica*, GABB, Paleont. of Cal. 186, 24, 169.

- 114 = *Astarte minutissima*, LEA, Cont. to Geol. 64, 2, 39.
 115 = *Astarte parva*, LEA, Cont. to Geol. 63, 2, 37. *M. minor* (*Astarte minor*, Lea) is probably a distinct species, but closely allied, fig. 38.
 130 = *Egeria inflata*, LEA, lb. 50, 1, 18.
 139 = *Dosinia gyrata*, GABB, Palmont. of Cal. 168, 23, 148.
 146 = *Corbis lamellosa*, CONRAD (NOT LAM.), Foss. Shells of Tert. Form.
 164 = *Cytherea lenticularis*, ROGERS, TRANS. AM. PHIL. SOC. VI, 2d ser. 372, 28, 1.
 165 = *Venus floridana*, CONRAD, AM. JOUR. SCI. II, 2d ser. 399.
 166 = *Venus penita*, CONRAD, lb. 400.
 183 = *Cytherea ovata*, ROGERS, TRANS. AM. PHIL. SOC.
 213 = *Egeria plana*, LEA, CONT. TO GEOL. 54, 1, 24.
 227 = *Anatina olaibornensis*, lb. 40, 1, 8.
 240 = *Solen diegoensis*, GABB, Palmont. of Cal. 213, 32, 280.
 241 = *Solen parallelus*, GABB, lb. 146, 22, 117.
 246 = *Bulla Dekayi*, LEA, CONT. TO GEOL. 200, 6, 215.
 259 = *Actæon impressa*, GABB, Palmont. of Cal. 142, 21, 106.
 262 = *Psilthea striata*, LEA, CONT. TO GEOL. 102, 4, 83.
 264 = *Psilthea sulcata*, LEA, lb. 103, 4, 84.
 265 = *Marginella buplicata*, LEA, lb. 201, 6, 216.
 266 = *Melania nitidula*, MEEK, Proc. Acad. Nat. Sci. July, 1860.
 268 = Subgenus *Pleurolimnæa*, MEEK (under *Limnæa*), like *Acclia*, but differs in having slender distant longitudinal costæ, and its aperture narrowed, instead of rounded, anteriorly. Type *Limnæa tennicostata*, MEEK & HAYDEN.
 280 = *Bulimus limnæiformis*, MEEK & HAYDEN, not *Spiraxis limnæiformis*, Shuttleworth.
 285 = *Helix spatiosa*, MEEK, Proc. Acad. Nat. Sci. 1861, 446.
 288 = *Bulimus perversus*, MEEK & HAYDEN, not *Clausilia perversa*, Pfeiffer.
 289 = *Bulimus teres*, MEEK & HAYDEN, Proc. Acad. Nat. Sci. June, 1836, 117.
 290 = *Bulimus vermiculus*, MEEK & HAYDEN, lb. June, 1836, 118.
 296 = *Dentalium* (*Ditrupa*?) *pusillum*, GABB, Palmont. of Cal. 130, 21, 99.
 297 = *Ditrupa subcoarctata*, GABB, JOUR. ACAD. NAT. SCI. IV, 2d ser. 386, 67, 47.
 303 = *Rotella nana*, LEA, CONT. TO GEOL. 214, 6, 225.
 306 = *Narica diegoana*, CONRAD, Pacific R. R. Rep. V, 326, 5, 39.
 307 = *Hippomyx pygmaea*, LEA, CONT. TO GEOL. 95, 3, 75.
 308 = *Calyptrea trochiformis*, LEA, lb. 96, 3, 76.
 314 = *Galerus excentricus*, GABB, Palmont. of Cal. 136, 20, 95, and 29, 232.
 329 = *Turritella striata*, LEA, CONT. TO GEOL. 131, 4, 122.
 340 = *Melania*? *multistriata*, MEEK & HAYDEN, Proc. Acad. Nat. Sci. June, 1856.

- 341 = *Paludina multilineata*, MEEK & HAYDEN, *ib.* June, 1856.
 342 = *Paludina vetula*, MEEK & HAYDEN, *Proc. Acad. Nat. Sci.* June, 1856.
 343 = *Melania Authonii*, MEEK & HAYDEN, *ib.* March, 1856.
 344 = Genus *Micropyrgus*, MEEK. Founded upon a minute, smooth, sub-cylindrical shell, with a rather obtuse apex, and a subrhombic aperture. It is much like *Pyrgula*, but differs in not having its axis perforate, while its whorls are without carinae, though they are prominent and obtusely subangular below the middle. Occurs with fresh-water forms. Type *Melania minutula*, MEEK & Hayden, *Proc. Acad. Nat. Sci.* June, 1856.
 345 = *Natica alabamensis*, WHITFIELD, *Am. Jour. Conch.* I, 265, 27, 9-10.
 346 = *Natica erecta*, WHITFIELD, *ib.* 1, 264, 27, 11.
 347 = *Melania humerosa*, MEEK & HAYDEN, *Proc. Acad. Nat. Sci.* July, 1860.
 351 = *Cerithium nodulosum*, HALL, Fremont's Report.
 352 = *Melania arota*, MEEK & HAYDEN, *Proc. Acad. Nat. Sci.* July, 1860.
 353 = *Cerithium Fremontii*, HALL, Fremont's Report.
 354 = *Melania Simpsoni*, MEEK, *Proc. Acad. Nat. Sci.* July, 1860.
 355 = *Melania sublaevis*, MEEK & HAYDEN, *ib.* March, 1857.
 356 = *Melania subtortuosa*, MEEK & HAYDEN, *ib.* May, 1857.
 357 = *Melania tenuicarinata*, MEEK & HAYDEN, *ib.* May, 1857.
 358 = *Cerithium tenerum*, HALL, Fremont's Report.
 397 = *Solarium Henrici*, LEA, *Cont. to Geol.* 119, 4, 107.
 400 = *Solarium ornatum*, LEA, *ib.* 120, 4, 108.
 401 = *Delphinula plana*, LEA, *ib.* 117, 4, 104.
 402 = *Solarium pseudogranulatum*, D'ORBIGNY, *Prodromus*, 2, 349.
 S. granulata, LEA, *Cont. to Geol.* 123, 4, 111.
 407 = *Delphinula depressa*, LEA, *Cont. to Geol.* 118, 4, 105.
 409 = *Turbo lineatus*, LEA, *ib.* 126, 4, 116.
 410 = *Planaria utens*, LEA, *ib.* 124, 4, 113.
 419 = *Pasithea aciculata*, LEA, *ib.* 102, 4, 82.
 423 = *Pasithea lugubris*, LEA, *ib.* 101, 4, 81.
 424 = *Pasithea notata*, LEA, *ib.* 101, 4, 80.
 427 = *Pasithea secale*, LEA, *ib.* 100, 4, 19.
 431 = *Actæon melanellus*, LEA, *ib.* 113, 4, 99.
 433 = *Actæon pygmaeus*, LEA, *ib.* 114, 4, 101.
 434 = *Actæon striatus*, LEA, *ib.* 114, 4, 100.
 437 = *Mitra costata*, LEA, *ib.* 166, 5, 172.
 453 = *Natica minima*, LEA, *Cont. to Geol.*, 107, 4, 91.
 458 = *Natica alveata*, *Con. Pacif. Rail R. Reports*, 5, 321, 2, 8.
 Amauropsis alveata ? Gabb. Palmont, of Cal. *fig.* 59?
 462 = *Natica gibbosa*, LEA, *ib.* 108, 4, 92.
 470 = *Naticina obliqua*, GABB, Palmont, of Cal. 109, 21, 112.
 481 = *Sycotypus penitus*, CONRAD, *Foss. Shells of Tert. Form.* 32.
 476 = *Buccinum Sowerbii*, LEA, *Cont. to Geol.* 164, 5, 169.

- 482 = *Fusus Remondii*, GABB, Palaeont. of Cal., 87, 18, 36.
 478 = *Fusus Cooperi*, GABB, *ib.* 1, 86, 28, 207.
 480 = *Fusus mammillatus*, GABB, *ib.* 1, 276, 32, 276.
 483 = *Hemifusus Horni*, GABB, Palaeont. of Cal. 86, 28, 206.
 504 = *Mitra Flemingii*, LEA, 170, 6, 177.
 505 = *Mitra fusoides*, LEA, Cont. to Geol. 169, 6, 176.
 510 = *Mitra Mooreana*, GABB, Jour. Acad. Nat. Sci. IV, 2d ser. 383, 67, 24.
 513 = *Mitra lineata*, LEA, Cont. to Geol. 165, 5, 174.
 514 = *Mitra minima*, LEA, *ib.* 168, 6, 175.
 521 = *Fasciolaria Moorei*, GABB, Jour. Acad. Nat. Sci. IV, 2d ser. 382, 67, 27.
 522 = *Fasciolaria plicata*, LEA, Cont. to Geol. 143, 5, 142.
 525 = *Anollaria elongata*, GABB, Palaeont. of Cal. 100, 54, 18.
 526 = *Oliva gracilis*, LEA, Cont. to Geol. 182, 6, 196.
 527 = *Oliva Phillipsii*, LEA, *ib.* 181, 5, 199.
 528 = *Anolax gigantea*, LEA, Cont. to Geol. 180, 6, 193.
 533 = *Anolax plicata*, LEA, *ib.* 181, 6, 199.
 534 = *Agaronia punctulifera*, GABB, Jour. Acad. Nat. Sci. 2d ser. IV, 381, 67, 22.
 541 = *Fusus Taitii*, LEA, Cont. to Geol. 152, 5, 159. *Monoceros armigera*, CONRAD.
 546 = *Monoceros sulcatum*, LEA, *ib.* 163, 5, 168.
 551 = *Tritonium diegoensis*, GABB, Palaeont. of Cal. I, 95, 18, 44.
 566 = *Pleurotoma Beaumontii*, LEA, Cont. to Geol. 134, 4, 127.
 569 = *Pleurotoma celata*, LEA, *ib.* 132, 4, 123.
 570 = *Pleurotoma Childreni*, LEA, *ib.* 137, 4, 132.
 572 = *Pleurotoma Desnoyersii*, LEA, *ib.* 135, 4, 128.
 575 = *Pleurotoma Kellogii*, GABB, Jour. Acad. Nat. Sci. IV, 2d ser. 379, 67, 10.
 578 = *Pleurotoma monilifera*, LEA, Cont. to Geol. 133, 4, 126.
 579 = *Pleurotoma nodocarinata*, GABB, Jour. Acad. Nat. Sci. IV, 2d ser. 379, 67, 13.
 581 = *Pleurotoma obliqua*, LEA, Cont. to Geol. 136, 4, 131.
 582 = *Pleurotoma rugosa*, LEA, *ib.* 136, 4, 130.
 584 = *Pleurotoma Sayi*, LEA, *ib.* 133, 4, 125.
 588 = *Pleurotoma varicostata*, GABB, Palaeont. of Cal. I, 93, 18, 47.
 590 = *Pleurotoma Lonsdalli*, LEA, Cont. to Geol. 132, 4, 124.
 591 = *Pleurotoma texana*, GABB, Jour. Acad. Nat. Sci. IV, 2d ser. 379, 67, 11.
 611 = *Papillina attilis*, CONRAD, Eocene Cat. Am. Jour. Conch. 1, 17.
 612 = *Fusus Cooperi*, CONRAD, Foss. Shells of Tert., 55, 18, 15.
 613 = *Fusus Conybearii*, LEA, Cont. to Geol. 149, 5, 154.
 639 = *Pelagus vanuxemi*, CONRAD. I am not certain that the New Jersey species is identical with *A. sicca*, but in a specimen of

a specimen of the California *Aturia*, I worked out a very clear outline of the septa and found the lobes to be wider than those of any of the figures of the European *A. sicca*, and I am therefore disposed to retain the name of *A. angustata*, which should have been inserted in the Check List.

640 = *Nautilus Lamarckii*, DESHAYES, Coq. Foss. des env. de Paris II, 767, c, l. N. Bartini, Galeotti.

648 = *Clavella vicksburgensis*, CONRAD.

651 = *Nummulites Mantelli*, MORTON, Synopsis, 45, 5, 9.

658 = *Scutella crustuloides*, MORTON, ib. 77, 15, 10.

660 = *Scutella pileus-sinensis*, RAVENEL, Proc. Acad. Nat. Sci.

663 = *Echinus infulatus*, MORTON, ib. 75, 10, 7.

664 = *Scutella Jonesii*, FORBER, Quart. Jour. Geol. I, 440.

665 = *Scutella Rogeri*, MORTON, Synopsis, 77, 13, 3.

666 = *Mortonia tumida*, CONRAD, Proceed. Acad. Nat. Sci. 1865, 184.

667 = *Pyrgorhynchus Mortonis*, MICH. Rev. et Mag. Zool. 1850, 2.

670 = *Catopygus patelliformis*, BOUVÉ, Proc. Bos. Soc. Nat. Hist. 1V, 2.

674 = *Cellepora tubulata*, LONSDALE, Quart. Jour. Geol. Soc. I, 70.

690 = *Terebratula lachryma*, MORTON, Synopsis, 72, 10, 11, and 16, 6.

696 = *Plagiotoma dumosa*, MORTON, ib. 59, 16, 8.

738 = *Umbrella planulata*, CONRAD, Wallis' Geol. of Miss. pl. 14, f. 1.

755 — Described from an imperfect specimen as n. g. *Doliopsis*. It is, however, generically and specifically allied to *Galeodea Peter-soni*, and therefore the genus is abandoned.

NOTE.—Synonymes and references to my own species will be found in the American Journal of Conchology, by George W. Tryon, Vol. I, p. 1.

The shells of California which I have inserted in this Check List are regarded as Cretaceous species by Mr. Gabb. They are only referred to the Eocene provisionally in consequence of their association with the genera *Aturia* and *Venericardia*, neither of which as properly restricted existed in the Cretaceous period, and from the fact that Mr. Gabb does not name one exclusively Cretaceous genus in Division B, except *Anchura* (*Aporrhais*), which, as it was found "in a single stratum of greenish-gray limestone," may not belong to Division B.

It will be observed that as I have published a Check List of the older Tertiary formation and its subdivisions and Mr. Meek a Check List of the Miocene, these together constitute all the Tertiary Divisions of North America; and so far as our knowledge extends all the species are extinct. The Oligocene has been found in St. Domingo, and is supposed to occur in Australia, where Professor McCoy thinks he finds four of the species of this formation,¹ identical with recent shells—*Limopsis Belcheri*, *L. aurita*, *Pectunculus laticostatus*, and *Corbula sulcata*. Not one of these species has

¹ Older Miocene, McCoy.

been found in North America. No trace has been discovered of any Tertiary newer than the Miocene.

All the Oligocene species were found by myself at Vicksburg, Mississippi, a few of which are said by Prof. Hilgard to occur in the Jackson Eocene. I found one only at Vicksburg, a solitary specimen of *Fusimitra conquisita*, which is also a Jackson species; and, I think, that any mixture of Oligocene and Eocene forms was accidental after the latter fauna became extinct.

The Jackson group was so named by Prof. Eugene W. Hilgard in his learned and able report on the Geology of Mississippi.

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